UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,470	02/01/2002	Travis D. Fox	STL10244/40046.191USU1	1719

7590 08/13/2004	EXAMINER	
MERCHANT & GOULD P.C.	WILSON, YOLANDA L	
P.O. Box 2903		
Minneapolis, MN 55402-0903	ART UNIT	PAPER NUMBER
	2113	

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/061,470	FOX ET AL.
	Examiner	Art Unit	
	Yolanda Wilson	2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 February 2002</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/1/2002</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 1-5,7,11-16,18,21-29 are rejected under 35 U.S.C. 102(a) as being

anticipated by Gutta et al. (USPN 6122693A). As appears in claim 1, Gutta et al.

discloses a bus analyzer operable to scan a communication trace transmitted between

the host device and the target device and record logic transitions of signal lines

contained in the communication trace; a timing event analysis module connected to the

bus analyzer to analyze the logic transitions to identify a timing measure present in the

communication trace; and a timing measure analysis module connected to the timing

event analysis module to evaluate the timing measure against a timing measure

protocol specified by the industry standard in column 3, line 22 – column 4, line 4;

column 5, lines 43-55.

3.   As per claim 2, Gutta et al. discloses wherein the timing event analysis module

identifies the timing measure by detecting a predetermined timing measure condition in

the communication trace, the timing measure condition being predefined by the timing

measure protocol in column 5, lines 43-55.

4.   As per claim 3, Gutta et al. discloses wherein the timing measure condition is

detected in the communication trace following occurrence of a plurality of logic

transitions, wherein each logic transition occurs on a separate signal line. It is inherent for commands being executed on the bus for a particular request to have logic transitions occurring at certain times during the execution of the request.

5.   As per claim 4, Gutta et al. discloses wherein the timing measure condition is detected in the communication trace following occurrence of a logic transition on a single signal line. It is inherent for commands being executed on the bus for a particular request to have logic transitions occurring at certain times during the execution of the request.

6.   As per claim 5, Gutta et al. discloses wherein the timing measure analysis module calculates a length, in time, from a start condition to an ending condition and thereafter compares the length to an exemplary length specified by the timing measure protocol to determine whether the timing measure complies with a specification of the industry standard in column 3, line 45 – column 4, line 4; column 5, lines 43-55.

7.   As per claim 7, Gutta et al. discloses wherein the timing measure analysis module creates a report detailing whether the timing measure complies with the protocol specified by the industry standard in column 6, lines 45-49.

8.   As per claim 8, Gutta et al. discloses wherein the host device is a host computer and the target device is a disc drive.

9.   As per claim 11, Gutta et al. discloses (a) scanning a communication trace transmitted between the host device and the target device; (b) identifying a timing measure present in the communication trace; and (c) evaluating the timing measure

against a timing measure protocol specified by the industry standard in column 3, line 22 – column 4, line 4; column 5, lines 43-55.

10.   As per claim 12, Gutta et al. discloses wherein the identifying step (b) comprises steps of: (b)(i) detecting one or more logic transitions of signals lines contained in the communication trace. It is inherent for commands being executed on the bus for a particular request to have logic transitions occurring at certain times during the execution of the request. Gutta et al. discloses (b)(ii) analyzing the one or more logic transitions to identify the timing measure column 3, line 22 – column 4, line 4; column 5, lines 43-55.

11.   As per claim 13, Gutta et al. discloses wherein the analyzing step (b)(ii) comprises a step of: (b)(ii)(A) detecting a timing measure condition in the communication trace, the timing measure condition being predefined by the timing measure protocol in column 5, lines 43-55.

12.   As per claim 14, Gutta et al. discloses wherein the detecting step (b)(ii)(A) comprises a step of: identifying the timing measure condition in the communication trace following occurrence of a plurality of logic transitions, wherein each logic transition occurs on a separate signal line. It is inherent for commands being executed on the bus for a particular request to have logic transitions occurring at certain times during the execution of the request.

13.   As per claim 15, Gutta et al. discloses wherein the detecting step (b)(ii)(A) comprises a step of: identifying the timing measure condition in the communication trace following occurrence of a logic transition on a single signal line. It is inherent for

commands being executed on the bus for a particular request to have logic transitions occurring at certain times during the execution of the request.

14.   As per claim 16, Gutta et al. discloses wherein the evaluating step (c) comprises steps of: (c)(i) calculating a length, in time, from a start condition to an ending condition; and (c)(ii) comparing the length to an exemplary length specified by the timing measure protocol to determine whether the timing measure complies with a specification of the industry standard in column 3, line 45 – column 4, line 4; column 5, lines 43-55.

15.   As per claim 18, Gutta et al. discloses wherein the method further comprises a step of: (d) creating a report detailing whether the timing measure complies with a specification of the industry standard based on evaluation of the timing measure against the timing measure protocol in column 6, lines 45-49.

16.   19. A program storage device as defined in claim 11, wherein the host device is a host computer and the target device is a disc drive.

17.   As per claim 21, Gutta et al. discloses wherein the method further comprises a step of defining a specific timing measure type having a plurality of timing measures present in the communication trace, wherein the identifying step (b) comprises a step of: detecting each of the plurality of timing measures in the communication trace in column 3, line 45 – column 4, line 4; column 5, lines 43-55.

18.   As per claim 22, Gutta et al. discloses wherein the evaluating step (c) comprises a step of: (c)(i) calculating a length, in time, of each of the plurality of timing measures; (c)(ii) averaging the length of the plurality of timing measures to render a representative timing measure length; and (c)(iii) comparing the representative timing measure length

to an exemplary length specified by the timing measure protocol in column 3, line 45 –

column 4, line 4; column 5, lines 43-55.

19.   As per claim 23, Gutta et al. discloses wherein the method further comprises a

step of defining a plurality of timing measure types, wherein each timing measure type

is associated with one or more timing measures present in the communication trace and

the identifying step (b) comprises a step of: detecting the one or more timing measures

present in the communication trace associated with each timing measure type in column

3, line 45 – column 4, line 4; column 5, lines 43-55.

20.   As per claim 24, Gutta et al. discloses wherein the evaluating step (c) comprises

a step of: evaluating the one or more timing measures associated with each timing

measure type against a timing measure protocol specified by the industry standard as

specific to each timing measure type in column 3, line 45 – column 4, line 4; column 5,

lines 43-55.

21.   As per claim 25, Gutta et al. discloses wherein the evaluating step (c) comprises

steps of: (c)(i) calculating a length, in time, of the one or more timing measures

associated with each timing measure type; (c)(ii) averaging the length of the one or

more timing measures associated with each timing measure type to render a

representative timing measure length for each timing measure type; and (c)(iii)

comparing the representative timing measure length for each timing measure type to an

exemplary length specified by a timing measure protocol defined by the industry

standard as specific to each timing measure type in column 3, line 45 – column 4, line 4;

column 5, lines 43-55.

22.   As per claim 26, Gutta et al. discloses a timing event analysis module analyzing

the logic transitions to identify a timing measure present in the communication trace;

and means for evaluating the timing measure against a timing measure protocol

specified by the industry standard in column 3, line 22 – column 4, line 4; column 5,

lines 43-55.

23.   As per claim 27, Gutta et al. discloses wherein the timing event analysis module

identifies the timing measure by detecting a timing measure condition in the

communication trace, the timing measure condition being predefined by the timing

measure protocol in column 5, lines 43-55.

24.   As per claim 28, Gutta et al. discloses wherein the evaluating means comprises:

means for calculating a length, in time, of the timing measure from a start condition to

an ending condition in column 3, line 45 – column 4, line 4; column 5, lines 43-55.

25.   As per claim 29, Gutta et al. discloses wherein the evaluating means comprises:

means for comparing the length to an exemplary length specified by the timing measure

protocol to determine whether the timing measure complies with a specification of the

industry standard in column 5, lines 43-55.

Claim Rejections - 35 USC § 103

26.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

27.   Claims 6,17,30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gutta et al. in view of Edwards, Jr. (USPN 6766479B2). Gutta et al. fails to explicitly

state the industry standard is Small Computer System Interface.

Edwards, Jr. discloses this limitation in column 4, lines 12-20.

Accordingly, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have the industry standard be Small Computer System

Interface. A person of ordinary skill in the art would have been motivated to have the

industry standard be Small Computer System Interface because Small Computer

System Interface allows data to be transferred between devices in a computer system.

28.   Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gutta et al. in view of www.whatis.com. Gutta et al. fails to explicitly state the industry

standard is Serial Advanced Technology Attachment.

www.whatis.com discloses this limitation on page 1, "Serial ATA is a new

standard for connecting hard drives into computer systems."

Accordingly, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have the industry standard be Serial Advanced

Technology Attachment. A person of ordinary skill in the art would have been motivated

to have the industry standard be Serial Advanced Technology Attachment because

Serial Advanced Technology Attachment allows data to be transferred between a host

system and a hard drive.

29.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gutta et

al. in view of www.dictionary.com. Gutta et al. fails to explicitly state the industry

standard is Fibre Channel Arbitrated Loop.

www.dictionary.com discloses this limitation on page 1, "A fast serial bus

interface standard intended to replace SCSI on high-end servers...FC-AL enables self-

configuring and hot swapping and the maximum number of devices on a single port is

126."

Accordingly, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to have the industry standard be Fibre Channel Arbitrated

Loop. A person of ordinary skill in the art would have been motivated to have the

industry standard be Fibre Channel Arbitrated Loop because Fibre Channel Arbitrated

Loop allows data to be transferred between a host system and other devices in a

computing system.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Yolanda Wilson whose telephone number is (703) 305-

3298. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100